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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,559	02/09/2004	Clifford F. Biddulph	PVOZ 200015US01	8972

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EXAMINER	
ZHENG, LOIS L	
ART UNIT	PAPER NUMBER
1793	
MAIL DATE	DELIVERY MODE
07/06/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/774,559	BIDDULPH ET AL.	
	Examiner	Art Unit	
	LOIS ZHENG	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8,9 and 19-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8,9 and 19-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application.
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Claims 1-6, 8-9 and 19-23 are amended in view of applicant's response filed 14 May 2010. Claims 7 and 10-18 are canceled. Therefore, claims 1-6, 8-9 and 19-23 are currently under examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6, 8-9 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/07902(WO'902).

The teachings of WO"902 are discussed in paragraph 4 of the previous Non-Final Office Action mailed 25 June 2009. The rejection ground is maintained for the same reasons set forth in this previous Non-Final Office Action.

4. Claims 1-6, 8-9 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima et al. US 6,719,852 B2(Oshima) in view of WO 02/07902 (WO'902).

The teachings of Oshima in view of WO"902 are discussed in paragraph 5 of the previous Non-Final Office Action mailed 25 June 2009. The rejection ground is maintained for the same reasons set forth in this previous Non-Final Office Action.

Response to Arguments

5. Applicant's arguments filed 14 May 2010 have been fully considered but they are not persuasive.

In the remarks, applicant argues that WO'902 teaches a two-step process that produces a two-layer black anticorrosive coating instead of a single layer black chromium conversion coating as claimed.

The examiner does not find applicant's argument persuasive because what is claimed is an aqueous acidic solution that is capable of producing a single layer black chromium coating. Applicant's emphasis on WO'902's two-step coating process only points out the differences between the coating process of WO'902 and the coating process of the instant invention. However, the scope of the claim is directed to a coating solution rather than a coating process. Although the process of WO'902 contains two process steps, it is not to say that the Cr(III) containing coating solution used in the first coating step of WO'902 is not capable of producing a black conversion coating layer. As set forth above, the anticorrosive trivalent chromium contain solution used in the first step of WO'902's process is significantly similar to the claimed aqueous acidic solution and comprises components that contributes to the formation of a black coating such as phosphate, Fe, Co and Ni. Therefore, one of ordinary skill in the art would have expected that the trivalent chromium coating solution used in the first stage of WO'902's process is capable of producing a black chromate coating layer as claimed. In addition, a black pigment used in the second process step of WO'902 may simply be added to enhance degree of blackness of the coating film. The use of a black pigment

in the second step of WO'902 is not a negative teaching against the formation of a less black(i.e. in intensity), but still black, coating layer formed by the first coating solution that is substantially similar to the claimed coating solution. Applicant also has not provided factual evidence data demonstrating the Cr(III) containing first coating solution as taught by WO'902 produces a coating that is not black.

Applicant further argues that claimed nitrate and/or sulfate ions are not for pH control in the instant application. In addition, other coating components such as phosphorous anions, organic chelates and transition metal could also affect the pH. Therefore, there is no motivation to adjust sulfate and/or nitrate ion concentration to the claimed range.

The examiner does not find applicant's argument persuasive because pH of the coating bath affects coating process and the coating quality. Therefore, controlling the pH of the coating solution by adding sulfuric and/or nitric acids as taught by WO'902 is mechanism used to control coating quality and coating properties. In addition, WO'902 prefers using nitric acid or sulfuric acid for pH adjustment and control(see page 5, second to the last paragraph of the translation of WO'902 mailed out 8 December 2008). One of ordinary skill in the art would have find it obvious to have varied the amount of sulfate and nitrate ions in the coating solution of WO'902 via routine optimization in order to achieve and maintain desired pH in the coating solution. Although WO'902 may have used sulfate and/or nitrate ions for a different purpose in its first coating solution than claimed invention, it is well settled that the reason or motivation to modify the reference may often suggest what the inventor has done, but

for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. In re Linter, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972). See MPEP 2144.

Applicant further argues that both Oshima and WO'902 teach adding color pigment or dye in a topcoat. Therefore, combining Oshima and WO'902 would only result in a two layer coating system with the black pigment in the topcoat.

The examiner does not find applicant's argument persuasive. There are various coating component, other than a black pigment, that can be added to the trivalent chromium solution of Oshima make the resulting coating black. WO'902 teaches phosphate, Fe, Co and Ni ions can all be added to promote the formation of a black chromate conversion coating. Therefore, it would have been within one of ordinary skill in the art to have incorporated some or all of phosphate, Fe, Co and Ni ions, all of which are added to the Cr(III) coating solution used in the first coating step of WO'902, into the Cr(III) conversion coating solution of Oshima in order to achieve a black coating with expected success.

Applicant further argues that WO'902 only mentions using the black pigment in the second coating layer which forms a uniform black color in the top coating layer.

The examiner does not consider applicant's argument convincing because WO'902 also teaches that the black pigment is a optional component in the second coating solution(see page 5 lines 2 and 16 of the translation of WO'902 mailed 8 December 2008). In fact, WO'902's first trivalent chromium solution comprises components that contribute to a black coating layer such as phosphate, Fe, Co and Ni

ions(see page 7, 2nd paragraph and page 8, 3rd paragraph of translation of WO'902 mailed 8 December 2008). Therefore, the examiner maintains that the trivalent chromium coating solution of WO'902 is capable of producing black chromate conversion coating layer as claimed absent persuasive evidence to the contrary.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Preikschat et al. US 6,287,704 B1 teaches that black chromate layer can be formed with addition of colloidal silver ions, iron, nickel or cobalt oxide(col. 2 lines 34-55).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lois Zheng whose telephone number is (571) 272-1248. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Roy King/
Supervisory Patent Examiner, Art Unit 1793

LLZ